

I claim:

1. Method for determining a minimum or maximum switching activity of a digital circuit on the basis of a model of the digital circuit, with which method for determining the minimum switching activity a check is performed as to whether there is at least one disproving operational case of the digital circuit, in which the switching activity is less than an estimated value, and the check is repeated if there is a disproving operational case with an estimated value reduced by one step size and if there is no disproving operational case with an estimated value increased by one step size, or for determining the maximum switching activity a check is performed as to whether there is at least one disproving operational case of the digital circuit, in which the switching activity is greater than an estimated value and the check is repeated if there is a disproving operational case with an estimated value increased by one step size and if there is no disproving operational case with an estimated value reduced by one step size.
2. Method according to claim 1, wherein at the start the check is performed with an estimated value, which is dependent on the number of flip-flops within the digital circuit.
3. Method according to claim 1, wherein the step size reduces every time the check is repeated.
4. Method according to claim 3, wherein the method is terminated as soon as the step size has reached a minimum step size.

5. Method according to claim 1, wherein the method is terminated after a maximum number of repetitions.

5 6. Method according to claim 1, wherein at the end of the process the disproving operational case last determined as existing is determined and dependent on this disproving operational case the power consumption of the digital circuit with minimum or maximum switching activity is  
10 determined.

7. Method according to claim 1, wherein at the end of the process the disproving operational case last determined as existing is determined and dependent on this disproving  
15 operational case a measure for the number of the elements of the digital circuit is determined, which in this disproving operational case were involved in a verification of at least one switching characteristic.

20 8. Method according to claim 1, characterized in that when the check is performed only at least one switching characteristic needs to be fulfilled.

9. Apparatus for determining a minimum or maximum switching  
25 activity of a digital circuit on the basis of a model of the digital circuit with a data processor, which is equipped in such a manner that for determining the minimum switching activity it carries out a check as to whether there is at least one disproving operational case of the  
30 digital circuit, in which the proof activity is less than an estimated value and it repeats the check if there is a disproving operational case with an estimated value reduced by one step size and if there is no disproving operational

case with an estimated value increased by one step size, or for determining the maximum switching activity carry out a check as to whether there is at least one disproving operational case of the digital circuit, in which the switching activity is greater than an estimated value, and repeats the check if there is a disproving operational case with an estimated value increased by one step size and if there is no disproving operational case with an estimated value reduced by one step size.

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10. Digital memory device, with electronically selectable control signals, which can cooperate in such a way with a programmable computer system so that this implements a method for determining a minimum or maximum switching activity of a digital circuit on the basis of a model of the digital circuit, with which method for determining the minimum switching activity a check is performed as to whether there is at least one disproving operational case of the digital circuit, in which the switching activity is less than an estimated value, and the check is repeated if there is a disproving operational case with an estimated value reduced by one step size and if there is no disproving operational case with an estimated value increased by one step size, or for determining the maximum switching activity a check is performed as to whether there is at least one disproving operational case of the digital circuit, in which the switching activity is greater than an estimated value and the check is repeated if there is a disproving operational case with an estimated value increased by one step size and if there is no disproving operational case with an estimated value reduced by one step size.

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